NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165

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South Florida Christmas Outlook

There are some **parallels to last week's small scale torrential rainfall** in the weather pattern shaping up for Christmas Eve and Christmas Day this week. Another **boundary** may be moving slowly north through mainland South Florida beginning Thursday afternoon or evening (Christmas Eve) with a **strong southeast low level wind** flow and **increasing moisture**. However, there is one big difference, the storm system last week was moving through the Gulf of Mexico but the one this week will be over the Midwest. Additionally, the atmosphere last week was a little more unstable.

Therefore, there will be a chance of showers and a slight chance of thunderstorms, with a possibility of some locally heavy rains, in the forecast for Christmas Eve and Christmas Day. Otherwise, it will be **warm, humid and possibly rainy** across mainland South Florida with considerable cloudiness. Temperatures will be in the 70s on Christmas Eve, followed by overnight temperatures falling into the 60s inland to the lower 70s along the beaches Southeast coast for Christmas morning. For Christmas Day, temperatures will rise through the 70s to an afternoon high from 78 to 82. It will be breezy with southeast winds gradually becoming southerly and southwesterly during the day on Christmas Day. Another cold front should be moving through mainland South Florida Christmas night into early Saturday.

Stay informed of this situation through this web site and NOAA Weather Radio.

<u>Climatology</u>

South Florida weather during the late December/early January holiday period is world-renowned for its typically dry and pleasant conditions. Average temperatures for the holiday period between December 25th and January 1st are as follows:

Location	Average Low/High Temperature
Miami	60/76
Fort Lauderdale	60/76
West Palm Beach	58/75
Naples	54/76
Moore Haven	52/74

Significant temperature variability can occur due to cold fronts which periodically move through the region this time of year. This variability can be noted in both the record minimum and maximum temperatures for both December 25th and January 1st. Strong cold fronts followed by air masses of either arctic or polar in origin can affect South Florida during the holiday period, and some of the region's all-time coldest temperatures on record have occurred on or around December 25th. Examples of cold temperatures on Christmas Day include 1983 and 1989, when temperatures dropped to near or below the freezing mark over virtually all of south Florida, with maximum temperatures only reaching the 40s. Although snow has never been recorded on Christmas Day in south Florida, frost did develop on Christmas morning 1989. Frost was noted on vehicles and rooftops all across south Florida, making that day about as close to a "White Christmas" as south Florida can expect.

Air masses following an average late December/January cold front normally result in low temperatures in the 40s or lower 50s, with high temperatures in the 60s to around 70. Cold air masses usually don't linger for too long due to the modifying effects of both the Atlantic Ocean and Gulf of Mexico, with temperatures returning to near normal values 3-5 days after the coldest readings.

Conversely, during warm periods, temperatures have also reached the 80s during the holidays, making some Christmases and New Year's Days feel almost like summer. This was the case during Christmas 2008 when maximum temperatures reached the 80s over most of south Florida. Because of this variability in temperature, visitors are recommended to pack for both balmy and chilly weather.

Measureable precipitation (greater than 0.01 inches) falls on either December 25th or January 1st on a frequency of once every 3 to 6 years, depending on the location (see table below for exact values per location). Holiday season rainfall normally comes in association with cold fronts sweeping through the area, or from persistent and rather moist easterly winds blowing off the Atlantic Ocean. An example of rainfall with moist easterly winds occurred on Christmas Day 2008 when several south Florida locations received measureable rainfall, including over an

inch (1.07) in West Palm Beach. Thunderstorms and severe weather are relatively rare during the holidays, but can accompany squall lines ahead of cold fronts.

Also, persistent and sometimes strong winds during this time of year can produce rip currents along both the southeast and southwest Florida coasts, and all beachgoers are strongly urged to check conditions before heading to the beach, as well as swim at guarded beaches.

For the latest South Florida weather information, including forecasts and warnings, please visit the National Weather Service in Miami website at http://weather.gov/miami

Below are the all-time and top 5 coldest, warmest and wettest days for December 25th and January 1st for select South Florida sites.

(NOTE: Time period of records are as follows: Miami since 1895, Fort Lauderdale since 1912, West Palm Beach since 1889 [1938 for precipitation], Naples since 1942 and Moore Haven since 1918).

Record Daily Minimum Temperatures (Degrees F)

Date	Location				
	Miami	**Fort Lauderdale**	**West Palm Beach**	**Naples**	**Moore Haven**
Dec 25	30 (1989)	29 (1989)	28 (1989)	28 (1989)	23 (1989)
Jan 1	36 (1918)	34 (1918, 1949)	35 (1918)	39 (1981)	29 (2001)

Record Daily Maximum Temperatures (Degrees F)

Date	Location				
	Miami	**Fort Lauderdale**	**West Palm Beach**	**Naples**	**Moore Haven**
Dec 25	85 (1897)	89 (1931)	87 (1940)	87 (1987)	85 (1998)

Jan 1	87 (1982)	86 (1982)	85 (1996)	86 (1983)	86 (1974)

Top 5 Days with Coldest Average Daily Temperature (Degrees F)

Date	**Location**				
	Miami	**Fort Lauderdale**	**West Palm Beach**	**Naples**	**Moore Haven**
Dec 25	42.5 (1989)	42.0 (1989)	41.0 (1983)	39.5 (1983)	32.0 (1989)
	44.0 (1983)	43.5 (1983)	41.5 (1989)	40.5 (1989)	37.5 (1983)
	44.5 (1906)	46.5 (1995)	43.5 (1906)	47.5 (1995)	43.0 (1995)
	49.5 (1995)	50.5 (1963)	46.0 (1995)	49.5 (1966)	44.5 (1929)
	52.5 (1963)	51.5 (1961)	49.5 (1963)	50.0 (1963)	47.0 (1963)
Jan 1	46.5 (1918)	49.0 (1949)	45.5 (1898)	51.0 (1949)	41.5 (2001)
	51.5 (1949)	50.5 (1918)	47.5 (1918)	53.5 (1984)	46.0 (1949)
	52.5 (1896)	52.5 (2001)	50.5 (1895)	54.0 (1981)	48.5 (1984)
	54.5 (2001)	53.0 (1940)	50.5 (2001)	55.0 (1946)	50.5 (1927)
	55.5 (1984)	57.0 (1981)	51.0 (1949)	55.0 (1956)	52.0 (1981)

Top 5 Days with Warmest Average Daily Temperature (Degrees F)

Date	**Location**				
	Miami	**Fort Lauderdale**	**West Palm Beach**	**Naples**	**Moore Haven**
Dec 25	78.5 (1997)	79.0 (1997)	80.5 (1997)	80.0 (2006)	76.0 (1997)
	77.0 (1987)	78.5 (1926)	79.0 (1914)	77.0 (1997)	75.5 (1998)
	77.0 (1924)	77.5 (2008)	78.5 (1981)	77.0 (1987)	75.0 (2006)
	77.0 (1914)	77.5 (1953)	77.5 (1984)	76.0 (2008)	74.5 (1942)

	76.5 (2008)	77.0 (1914)	77.0 (1926)	76.0 (2002)	74.0 (2002)
Jan 1	78.5 (2003)	77.5 (1996)	78.0 (1996)	76.5 (1983)	74.5 (2008)
	78.0 (1982)	77.0 (1983)	76.5 (1952)	76.5 (1947)	74.0 (1974)
	77.5 (1996)	77.0 (1979)	76.5 (1947)	75.0 (2007)	74.0 (1947)
	77.5 (1983)	77.0 (1952)	76.0 (2007)	75.0 (2003)	73.5 (1982)
	77.5 (1947)	76.5 (1982)	76.0 (1983)	73.5 (1996)	73.0 (1991)

Top 5 Wettest Days (Inches)

Date	**Location**				
	Miami	**Fort Lauderdale**	**West Palm Beach**	**Naples**	**Moore Haven**
Dec 25	1.17 (1915)	1.11 (1992)	1.60 (1949)	0.30 (1957)	0.40 (1993)
	0.61 (1949)	0.97 (1936)	1.07 (2008)	0.21 (1985)	0.38 (1949)
	0.49 (2002)	0.80 (1949)	0.50 (1990)	0.19 (1978)	0.31 (1978)
	0.49 (1993)	0.65 (1959)	0.45 (2006)	0.14 (1959)	0.24 (1941)
	0.43 (2006)	0.50 (1948)	0.41 (1959)	0.09 (1979)	0.16 (2004)

Frequency of Measurable Precipitation (at least 0.01 inches) in years (once per X years)

4.3	3.5	2.7	5.6	4.8

Jan 1	1.87 (1931)	1.57 (1932)	1.58 (1993)	1.64 (2003)	1.95 (1987)
	1.45 (1993)	1.13 (1931)	0.55 (1992)	1.10 (1987)	1.75 (2003)

0.66 (1972)	1.12 (1992)	0.40 (1958)	0.74 (2002)	1.68 (1932)
0.54 (1987)	0.75 (1993)	0.23 (1983)	0.23 (1977)	0.34 (1977)
0.45 (1932)	0.68 (1987)	0.15 (1962)	0.16 (1962)	0.25 (1928)

Frequency of Measurable Precipitation (at least 0.01 inches) in years (once per X years)

5.1	3.7	5.9	6.1	4.8